

Notice of Allowability

Application No.

10/068,740

Examiner

Zandra V. Smith

Applicant(s)

SACCOMANNO, ROBERT J.

Art Unit

2877

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 05 February 2003.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 05 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ |
| 3 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No. <u>5: 4d 4/11/2003</u> | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Zandra V. Smith
Primary Examiner
Art Unit: 2877

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with James Falk (16,154) on 11 December 2004.

The application has been amended as follows:

1. An apparatus for directing laser energy to a plurality of targets in multiple fields of view, and receiving the scattered returns therefrom, comprising:
 - a plurality of condensing optical elements for collecting said scattered returns;
 - a plurality of windows for allowing said laser energy to pass therethrough;
 - an optical enclosure being formed from a combination of said condensing optical elements and said windows;
 - a multiple-axis scanning mirror positioned to receive a laser beam, said multiple-axis scanning mirror directing said laser beam into one or more predetermined scan patterns; and
 - a fold mirror with patterned aperture positioned to intercept the laser scan pattern, from said scanning mirror, said fold mirror [mirror] directing a first portion of said laser scan pattern along a first field of view and a second portion of said laser scan pattern along a second field of view.

6. The apparatus of claim [1] 3 wherein said periphery includes a light directing element selected from the group consisting of reflective elements, refractive elements, diffractive elements, and holographic elements.

7. The apparatus of claim [1] 3 wherein said transmissive central region is selected from the group consisting of a physical hole, a holographic element, a partially-transparent refractive element, and a substantially-transparent refractive element.

Allowable Subject Matter

Claims 1-12 are allowable over the prior art of record.

The following is an examiner's statement of reasons for allowance: the prior art of record, taken alone or in combination, fails to disclose or render obvious, an apparatus for directing laser energy to a plurality of targets in multiple fields of view that includes a multiple-axis scanning mirror positioned to receive a laser beam, said multiple-axis scanning mirror directing said laser beam into one or more predetermined scan patterns; and a fold mirror with patterned aperture positioned to intercept the laser scan pattern, from said scanning mirror, said fold mirror directing a first portion of said laser scan pattern along a first field of view and a second portion of said laser scan pattern along a second field of view, in combination with the rest of the limitations of claim 1.

Additionally, the prior art of record, taken alone or in combination, fails to disclose or render obvious a laser scanner that includes a fold mirror with patterned aperture located within an optical enclosure and positioned to intercept the laser scan pattern, the fold mirror comprising:

a transmissive central region passing a first portion of said laser scan

pattern therethrough in a direction substantially along a first field of view, and a periphery deflecting a second portion of said laser scan pattern in a direction along a second field of view , in combination with the rest of the limitations of claim 11.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Melville et al. (5,751,465) discloses an optical scanner that includes multiple mirrors but fails to provide the combination of mirrors, condensing elements and windows.

Kadrmass (3,781,552) discloses a multiple field of view telescope that includes scanning mirrors but no optical enclosure formed of condensing elements and windows.

Fax/Telephone Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zandra V. Smith whose telephone number is (703) 305-7776.

The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

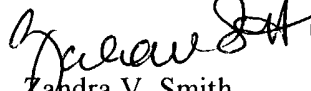
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703)308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0530.


Zandra V. Smith
Primary Examiner
Art Unit 2877

12/11/03